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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,169	06/30/2003	DAVID SHIUNG	10969-US-PA	1168
31561 7590 01/14/2008 JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE 7 FLOOR-1, NO. 100 ROOSEVELT ROAD, SECTION 2 TAIPEI, 100 TAIWAN			EXAMINER NGO, CHUONG D	
			ART UNIT 2193	PAPER NUMBER
			NOTIFICATION DATE 01/14/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USA@JCIPGROUP.COM.TW

Office Action Summary

Application No.

10/604,169

Applicant(s)

SHIUNG ET AL.

Examiner

Chuong D. Ngo

Art Unit

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01/02/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-9,11,12 and 14-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-9,11,12 and 14-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. Claims 1-4,6-9,11,12 and 14-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 1, lines 13-14, it is unclear as to how “the bank pass filter relies on Infinite-duration Impulse Response (IIR) filter design technology”. This recitation appears to be misdescriptive. The design of the present bank pass filter, as disclosed in the specification, is independent of IIR filter design technology. The disclosure of IIR filter in the application is merely for the purpose of comparison. Claims 9,12,18 and 20 also have the same problem.

2. Claims 1-4,6-9,11,12 and 14-21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Balaban et al. (4,464,675).

Balaban et al. discloses in figures 1, 2a and 2b, a filter (20) clearly including a shift register having a plurality of register (LI,TI1-TI227) coupled in cascade controlled by a synchronization clock (IFC) , and an arithmetic subtracting unit having an inverter (72) and an adder (74) for obtaining a difference between an input data stored in the output end (TI227) and the input end (LI) of the shift register to form an output of the filter as claimed. As illustrated in figure 12d, the filter clearly has a function of a band pass filter that extracts a desired frequency band ($15,734/2 = 7867\text{Hz}$, the frequency at the center of the of the first tooth) from an input signal, and thus the data of the input signal within the desired band. The length of the shift register ($LI+TI1 \text{ to } TI227 = 228$) is clearly equal to the sum of 1 and an integer part (227) of a

Art Unit: 2193

ratio ($1.79\text{MHz}/7867\text{Hz} = 227.7$) of a half of a signal sampling rate ($\text{IFC} = 3.58\text{ MHz}$, see col. 4, lines 64-65) of the input signal to a desired band pass frequency ($15,734/2\text{ Hz}$, see figure 12d and col. 12, lines 64-68) as claimed.

3. Applicant's arguments filed on 05/21/2007 have been fully considered but they are not persuasive because the limitation "the bank pass filter relies on Infinite-duration Impulse Response (IIR) filter design technology" is misdescriptive and unclear how the filter relies on IIR filter design technology, and thus it make no difference form the teaching of Balaban. Further, the comb filter 20 of Balaban et al. as clearly explained above have a function as a band pass filter as claimed. It should be noted that the filter of the present invention is also a comb filter with the teeth, as illustrated by figure 4 showing the first two teeth, separated by $2 \times 1.25\text{KHz} = 25\text{KHz}$.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2193

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong D. Ngo whose telephone number is (571) 272-3731. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Chuong D Ngo/
Primary Examiner
Art Unit 2193

01/02/2008